WHAT IS CLAIMED IS:

1. An optical fiber making method comprising the steps of:

inserting an optical fiber preform into a furnace core tube of a draw furnace;

heating the furnace core tube with a main heater to heat and melt a lower end portion of the optical fiber preform; and

drawing an optical fiber from the lower end of the optical fiber preform;

wherein, while drawing the optical fiber, an amount of heat applied to the lower end portion of the optical fiber preform is changed, without depending solely on the main heater, to change a draw tension and thereby change a local chromatic dispersion along a longitudinal direction of the optical fiber being manufactured.

2. An optical fiber making method according to claim 1, wherein a gas is supplied to a periphery of the lower end portion of the optical fiber preform and at least one of gas flow rate and gas composition is changed to change the amount of heat applied to the lower end portion of the optical fiber preform.

3. An optical fiber making method according to claim 1, wherein an amount of heat supplied from an auxiliary heater provided close to the lower end portion of the optical fiber preform is changed to change the amount of heat applied to

the lower end portion of the optical fiber preform.

4. An optical fiber making method according to claim 1, wherein a part of the heat dissipated from the furnace core tube or the lower end portion of the optical fiber preform is controlled and the dissipating condition is changed, so as to change the amount of heat applied to the lower end portion of the optical fiber preform.

5. An optical fiber making method according to claim 1, wherein a positional relation between the optical fiber preform and the furnace core tube are changed to change the amount of heat applied to the lower end portion of the optical fiber preform.

6. An optical fiber making method according to claim 1, wherein a draw tension is measured and the amount of heat applied to the lower end portion of the optical fiber preform is adjusted so that the measured draw tension will become a predetermined value.

7. An optical fiber making apparatus comprising:

a draw furnace having a furnace core tube into which an optical fiber preform is inserted and a main heater to heat the furnace core tube, the draw furnace heating and melting a lower end portion of the optical fiber preform;

a feeder to feed the optical fiber preform into the furnace core tube;

a draw means to draw an optical fiber from the lower end of the optical fiber preform in the draw furnace; and

a draw tension adjust means to adjust a draw tension by adjusting the amount of heat applied to the lower end portion of the optical fiber preform.

8. An optical fiber making apparatus according to claim 7, wherein the draw tension adjust means has a gas supply means for supplying a gas to a periphery of the lower end portion of the optical fiber preform, and the gas supply means varies either or both of flow and composition of the gas supplied.

9. An optical fiber making apparatus according to claim 7, wherein the draw tension adjust means has an auxiliary heater disposed close to the lower end portion of the optical fiber preform and controllable independently of the main heater.

10. An optical fiber making apparatus according to claim 7, wherein the draw tension adjust means has:

an insulating means disposed close to the lower end portion of the optical fiber preform to control heat dissipated from the furnace core tube or the lower end portion of the optical fiber preform; and

an insulating means varying device to change a position or state of the insulating means.

11. An optical fiber making apparatus according to claim 7, wherein a tension measuring means to measure an actually applied draw tension is provided and the draw tension adjust means controls the amount of heat applied

to the lower end portion of the optical fiber preform so that the draw tension measured by the tension measuring means becomes a predetermined value.